

AMENDMENTS TO THE CLAIMS

1. (Original) A method for providing a virtual replenishing of a supply item with an imaging substance, comprising the steps of:

providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;

communicating to a database a first serial number associated with said first supply item;

comparing said first serial number with a plurality of serial numbers stored in said database;

receiving from said database one of a first data indicating non-correspondence between said first serial number with one of said plurality of serial numbers and a second data indicating correspondence between said first serial number with one of said plurality of serial numbers, wherein said second data includes a verification key; and

comparing said verification key received from said database with a first key stored in a memory associated with said first supply item,

wherein if said verification key received from said database corresponds to said first key stored in said memory associated with said first supply item, then performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.

2. (Original) The method of claim 1, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

3. (Original) The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by a module attached to said supply item.

4. (Original) The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by a controller of an imaging device.

5. (Original) The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by the steps of:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said first supply item;

said module comparing said first portion of said verification key to a corresponding portion of said first key stored in said memory associated with said first supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said first key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

6. (Original) The method of claim 1, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to resubmit said first serial number.

7. (Original) The method of claim 6, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

8. (Original) The method of claim 1, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to enter a corrected key.

9. (Original) The method of claim 8, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

10. (Original) The method of claim 1, wherein the step of comparing said verification key is repeated a predetermined number of times.

11. (Original) The method of claim 10, wherein if there is no correspondence between said verification key and said first key in said predetermined number of times, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

12. (Original) The method of claim 1, wherein said memory is attached to said supply item.

13. (Original) A method for providing a virtual replenishing of a supply item with an imaging substance, comprising the steps of:

providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;

communicating to a mechanism a first serial number associated with said first supply item;

generating a verification key based on said first serial number;

comparing said verification key received from said mechanism with a first key stored in a memory associated with said first supply item,

wherein if said verification key received from said mechanism corresponds to said first key stored in said memory associated with said first supply item, then performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.

14. (Original) The method of claim 13, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

15. (Original) The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory associated with said first supply item is performed by a module attached to said supply item.

16. (Original) The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory associated with said first supply item is performed by a controller of an imaging device.

17. (Original) The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory associated with said first supply item is performed by the steps of:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said first supply item;

said module comparing said first portion of said verification key to a corresponding portion of said first key stored in said memory associated with said first supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said first key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

18. (Original) The method of claim 13, wherein if said verification key received from said mechanism does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to resubmit said first serial number.

19. (Original) The method of claim 18, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

20. (Original) The method of claim 13, wherein if said verification key received from said mechanism does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to enter a corrected key.

21. (Original) The method of claim 20, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

22. (Original) The method of claim 13, wherein the step of comparing said verification key is repeated a predetermined number of times.

23. (Original) The method of claim 22, wherein if there is no correspondence between said verification key and said first key in said predetermined number of times, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

24. (Original) The method of claim 13, wherein said memory is attached to said supply item.

25. (Original) The method of claim 13, wherein said first key is generated based on said first serial number by said mechanism executing an algorithm.

26. (Original) The method of claim 25, wherein said algorithm is an HMAC algorithm.

27. (Original) The method of claim 13, wherein the step of generating said verification key based on said first serial number is performed by said mechanism executing an algorithm.

28. (Original) The method of claim 27, wherein said algorithm is an HMAC algorithm.

29. (Original) A method for providing imaging substance for use in an imaging device, comprising the steps:

providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;

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associating a memory with said first supply item;

providing a database located remote from said memory for storing a plurality of serial numbers and a plurality of keys for a plurality of supply items;

generating a first serial number for said first supply item;

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generating a first key associated with said first serial number;

storing at least said first key in said memory associated with said first supply item;  
 storing said first serial number in said database;  
 storing said first key in said database as a verification key;  
 installing said first supply item in said imaging device for use in imaging; and  
 15 providing a virtual replenishing of said supply item with said imaging substance by the  
 steps of:  
     communicating to said database said first serial number;  
     comparing said first serial number with said plurality of serial numbers stored in said  
 database;  
 20 receiving from said database one of a first data indicating non-correspondence  
 between said first serial number with one of said plurality of serial numbers and a second data  
 indicating correspondence between said first serial number with one of said plurality of serial  
 numbers, wherein said second data includes said verification key; and  
     comparing said verification key received from said database with said first key stored  
 25 in said memory of said first supply item,  
     wherein if said verification key received from said database corresponds to said first  
 key stored in said memory associated with said first supply item, then performing the step of  
 allocating at least a portion of said surplus amount of said imaging substance contained in said  
 first supply item for use.

30. (Original) A method for providing imaging substance for use in an imaging device, comprising the steps:

providing a first supply item containing an actual supply of said imaging substance,  
 said actual supply including a licensed amount of said imaging substance and a surplus  
 5 amount of said imaging substance;  
     providing a memory that is associated with said first supply item;  
     providing a mechanism located remote from said memory for associating a plurality of  
 serial numbers with a respective plurality of keys for a plurality of supply items;  
     generating a first serial number for said first supply item;  
 10 generating a first key based on said first serial number;  
     storing at least said first key in said memory associated with said first supply item;  
     installing said first supply item in said imaging device for use in imaging; and  
     providing a virtual replenishing of said supply item with said imaging substance by the  
 steps of:

15       communicating to said mechanism said first serial number;  
          generating a verification key based on said first serial number;  
          comparing said verification key received from said mechanism with said first key  
          stored in said memory of said first supply item,  
          wherein if said verification key received from said mechanism corresponds to said first  
20   key stored in said memory associated with said first supply item, then performing the step of  
          allocating at least a portion of said surplus amount of said imaging substance contained in said  
          first supply item for use.

31. (New) A method for providing a virtual replenishing of a supply item with an  
imaging substance, said supply item containing an actual supply of said imaging substance,  
said actual supply including a licensed amount of said imaging substance and a surplus  
amount of said imaging substance, comprising:

5       communicating to a database a first serial number associated with said supply item,  
          wherein said first serial number is compared with a plurality of serial numbers stored in said  
          database;

          receiving from said database one of a first data indicating non-correspondence  
          between said first serial number with one of said plurality of serial numbers and a second data  
10   indicating correspondence between said first serial number with one of said plurality of serial  
          numbers, wherein said second data includes a verification key; and

          comparing said verification key received from said database with a first key stored in a  
          memory associated with said supply item,

          wherein if said verification key received from said database corresponds to said first  
15   key stored in said memory associated with said supply item, then allocating at least a portion  
          of said surplus amount of said imaging substance contained in said supply item for use.

32. (New) The method of claim 31, wherein said method is performed when said  
licensed amount of said imaging substance has fallen below a predetermined threshold.

33. (New) The method of claim 31, wherein the act of comparing said verification  
key received from said database with said first key stored in said memory associated with said  
supply item is performed by a module attached to said supply item.

34. (New) The method of claim 31, wherein the act of comparing said verification key received from said database with said first key stored in said memory associated with said supply item is performed by a controller of an imaging device.

35. (New) The method of claim 31, wherein the act of comparing said verification key received from said database with said first key stored in said memory associated with said supply item is performed by:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said supply item;

said module comparing said first portion of said verification key to a corresponding portion of said first key stored in said memory associated with said supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said first key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

36. (New) The method of claim 31, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to resubmit said first serial number.

37. (New) The method of claim 36, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

38. (New) The method of claim 31, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to enter a corrected key.



39. (New) The method of claim 38, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

40. (New) The method of claim 31, wherein the act of comparing said verification key is repeated a predetermined number of times.

41. (New) The method of claim 40, wherein if there is no correspondence between said verification key and said first key in said predetermined number of times, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

42. (New) The method of claim 31, wherein said memory is attached to said supply item.

43. (New) A method for providing a virtual replenishing of a supply item with an imaging substance, wherein said supply item contains an actual supply of the imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance, comprising:

- 5       communicating to a mechanism a serial number associated with said supply item;
- receiving a verification key based on said serial number;
- comparing said verification key received from said mechanism with a key stored in a memory associated with said supply item,
- wherein if said verification key received from said mechanism corresponds to said key
- 10   stored in said memory associated with said supply item, at least a portion of said surplus amount of said imaging substance contained in said supply item is allocated for use.

44. (New) The method of claim 43, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

45. (New) The method of claim 43, wherein the act of comparing said verification key received from said mechanism with said key stored in said memory associated with said

supply item is performed by a module attached to said supply item, wherein the module also comprises the memory.

46. (New) The method of claim 43, wherein the act of comparing said verification key received from said mechanism with said key stored in said memory associated with said supply item is performed by a controller of an imaging device.

47. (New) The method of claim 43, wherein the act of comparing said verification key received from said mechanism with said key stored in said memory associated with said supply item is performed by:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said supply item;

said module comparing said first portion of said verification key to a corresponding portion of said key stored in said memory associated with said supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

48. (New) The method of claim 43, wherein if said verification key received from said mechanism does not correspond to said key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to resubmit said serial number.

49. (New) The method of claim 48, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

50. (New) The method of claim 43, wherein if said verification key received from said mechanism does not correspond to said key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to enter a corrected key.

51. (New) The method of claim 50, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

52. (New) The method of claim 43, wherein the act of comparing said verification key is repeated a predetermined number of times.

53. (New) The method of claim 52, wherein if there is no correspondence between said verification key and said key in said predetermined number of times, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

54. (New) The method of claim 43, wherein said memory is attached to said supply item.

55. (New) The method of claim 43, wherein said key stored in said memory is generated based on said serial number by executing an algorithm.

56. (New) The method of claim 55, wherein said algorithm is an HMAC algorithm.

57. (New) The method of claim 43, wherein the act of generating said verification key based on said serial number is performed by said mechanism executing an algorithm.

58. (New) The method of claim 57, wherein said algorithm is an HMAC algorithm.

59. (New) A method for providing a virtual replenishing of a supply item with an actual supply of imaging substance, wherein said supply item includes a licensed amount of said imaging substance and a surplus amount of said imaging substance, and wherein a serial number associated with said supply item can be communicated to a mechanism for generating  
5 a verification key based on the serial number, comprising:

supplying said verification key for comparison with a key stored in a memory associated with said supply item,

wherein if said verification key supplied for comparison corresponds to said key, at least a portion of the surplus amount contained in said supply item is allocated for use.

60. (New) The method of claim 59, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

61. (New) The method of claim 59, wherein the act of comparing said verification key with said key stored in said memory associated with said supply item is performed by a module attached to said supply item, wherein the module also comprises the memory.

62. (New) The method of claim 59, wherein the act of comparing said verification key with said key stored in said memory associated with said supply item is performed by a controller of an imaging device.

63. (New) The method of claim 59, wherein the act of comparing said verification key with said key stored in said memory associated with said supply item is performed by:

sending from a controller of an imaging device a first portion of said verification key to a module attached to said supply item;

5       said module comparing said first portion of said verification key to a corresponding portion of said key stored in said memory associated with said supply item, and upon verification of said first portion,

said module supplying to said controller a remaining portion of said key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

64. (New) The method of claim 59, wherein if said verification key does not correspond to said key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to resubmit said serial number.

65. (New) The method of claim 64, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

66. (New) The method of claim 59, wherein if said verification key does not correspond to said key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to enter a corrected key.

67. (New) The method of claim 66, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

68. (New) The method of claim 59, wherein the act of comparing said verification key is repeated a predetermined number of times.

69. (New) The method of claim 68, wherein if there is no correspondence between said verification key and said key in said predetermined number of times, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

70. (New) The method of claim 59, wherein said memory is attached to said supply item.

71. (New) The method of claim 59, wherein said key stored in said memory is generated based on said serial number by executing an algorithm.

72. (New) The method of claim 71, wherein said algorithm is an HMAC algorithm.

73. (New) The method of claim 59, wherein the act of generating said verification key based on said serial number is performed by said mechanism executing an algorithm.

74. (New) The method of claim 73, wherein said algorithm is an HMAC algorithm.

75. (New) A method for providing a virtual replenishing of a supply item with an imaging substance, wherein said supply item contains an actual supply of the imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance, comprising:

5 receiving a serial number associated with said supply item; and  
generating a verification key based on said serial number,  
wherein said verification key is compared with a key stored in a memory associated  
with said supply item, and if said verification key corresponds to said key stored in said  
memory associated with said supply item, at least a portion of said surplus amount of said  
10 imaging substance contained in said supply item is allocated for use.

76. (New) The method of claim 75, wherein said method is performed when said  
licensed amount of said imaging substance has fallen below a predetermined threshold.

77. (New) The method of claim 75, wherein the act of comparing said verification  
key with said key stored in said memory associated with said supply item is performed by a  
module attached to said supply item, wherein the module also comprises the memory.

78. (New) The method of claim 75, wherein the act of comparing said verification  
key with said key stored in said memory associated with said supply item is performed by a  
controller of an imaging device.

79. (New) The method of claim 75, wherein the act of comparing said verification  
key with said key stored in said memory associated with said supply item is performed by:

sending from a controller of an imaging device a first portion of said verification key  
to a module attached to said supply item;

5 said module comparing said first portion of said verification key to a corresponding  
portion of said key stored in said memory associated with said supply item, and upon  
verification of said first portion,

said module supplying to said controller a remaining portion of said key stored in said  
memory for comparison by said controller to a corresponding portion of said verification key.

80. (New) The method of claim 75, wherein if said verification key does not  
correspond to said key stored in said memory associated with said supply item, then  
prompting at least one of a user and a monitoring mechanism to resubmit said serial number.

81. (New) The method of claim 80, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

82. (New) The method of claim 75, wherein if said verification key does not correspond to said key stored in said memory associated with said supply item, then prompting at least one of a user and a monitoring mechanism to enter a corrected key.

83. (New) The method of claim 82, wherein if there is no correspondence between said verification key and said key in a predetermined number of attempts, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

84. (New) The method of claim 75, wherein the act of comparing said verification key is repeated a predetermined number of times.

85. (New) The method of claim 84, wherein if there is no correspondence between said verification key and said key in said predetermined number of times, then displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

86. (New) The method of claim 75, wherein said memory is attached to said supply.

87. (New) The method of claim 75, wherein said key stored in said memory is generated based on said serial number by executing an algorithm.

88. (New) The method of claim 87, wherein said algorithm is an HMAC algorithm.

89. (New) The method of claim 75, wherein the act of generating said verification key based on said serial number is performed by a mechanism executing an algorithm.

90. (New) The method of claim 89, wherein said algorithm is an HMAC algorithm.